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## ABSTRACT

This study explored the development of children's representations of the affiliative structure of their peer group during primary school. Subjects were 467 boys and girls in first through sixth grade, who were assessed using a standard sociometric procedure and asked to give their perception of the existing networks in their peer group. Variance analysis was conducted by gender and grade level. Results showed that across all age levels, both girls and boys perceived themselves to be mainly affiliated with individuals of their own gender and that this pattern increased as a function of grade level. Exhaustivity and accuracy of the perceptions do improve with age, girls surpassing boys. In addition, both sexes appeared to show a better perception of the peer networks of their own gender, yet this pattern fluctuated with age. Results are discussed in light of current research on gender segregation, gender differences, and cognitive processes involved in social categorization. (Author/MM)

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Gender differences in the perceptions  
of affiliative networks in primary school

by

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## ABSTRACT

The present study explores the development of boys' and girls' representations of the affiliative structure of their peer group during primary school. Four hundred and sixty-seven subjects were asked to give their perception of the existing networks in their peer group. Main results show that across all age levels, both girls and boys perceive themselves mainly affiliated with individuals of their own gender and that this pattern increases as a function of grade level. Exhaustivity and accuracy of the perceptions do improve with age, girls surpassing boys. In addition, both sexes appear to show a better perception of the peer networks of their own gender, yet this pattern fluctuates with age. These results are discussed in light of current research on gender segregation, gender differences and cognitive processes involved in social categorization.

## INTRODUCTION

Gender segregation is well documented in day-care centers (La Freniere et al., 1985), reaching a peak in primary school settings (Hallinan, 1979; Lockheed & Klein, 1985; Maccoby, 1988). Recently, Brody, Hay and Vandewater (1990) have indicated that this phenomenon may occur with feelings of disgust, anger and fear for the other sex. Thus, cross-gender interactions seem to be powerful predictors of some emotions. Other studies have revealed differences in the structure of boys' and girls' groups. For instance, girls cluster in smaller groups (Laosa and Brophy, 1972; Waldrop and Halverson, 1975; Benensor, 1990), whereas boys' groups are oriented toward a more hierarchical structure. These differences and the relative split of the two sexes should affect the way boys and girls in primary school perceive the affiliative structure in their classroom. Thus, Maccoby and Jacklin (1987) studied whether boys and girls make finer distinctions in same-sex groups than in other-sex groups. Also, many authors have asserted that girls possess better social-cognitive abilities than boys.

Correlates of boys' and girls' affiliative (sociometric) choices have been studied extensively, however the representations of the affiliative structure of their peer group in terms of in-group and out-group perceptions have seldom been addressed. Cairns et al. (1985) have studied individual perceptions of the social structure of young adolescent groups, proposing a new method of identifying social networks based on participants' verbal report. The strategy involves asking each child to identify which children "hang around together" and which children are more often alone. According to Cairns et al. (1985), a child is considered a member of a sub-group if 30% of respondents identify the child as such. As this criterion implies some variability in the individual perceptions, we think this variability in the representations may follow a pattern, particularly with regard to gender and age.

The present study explores the development of these representations in primary school. Three broad questions emerge:

1. What is the gender composition of boy and girl groups as perceived by their members? Are there fluctuations in these perceptions during primary school? Our research maintains that gender bias affects the description of both ingroup and outgroup.
2. When asked to describe the affiliative structure of their classroom, do boys and girls include as many other-sex peers than same-sex peers, and do they perceive accurately the affiliative structure of their classroom? Our study suggests that, for girls as well as for same-sex peers, exhaustivity and accuracy of perceptions will improve with age.
3. Are the accuracy and exhaustivity of perceptions affected by the children's social status? At what age level are these relations the strongest?

## METHOD

### Subjects

Eighteen classes (six classes in Grades 1 and 2, six in Grades 3 and 4 and six in Grades 5 and 6) regrouping 467 subjects were assessed using a standard sociometric procedure (Coie, Dodge and Copotelli, 1982) as well as Cairns' nomination procedure (1985) adapted by Strayer et al. (1988). This instrument is designed to collect children's perception of the affiliative structure of their peer group. Subjects were asked to identify who "hangs around" with whom in the classroom and who is often solitary. For each subject, a set of measures related to structural aspects of subgroups and two social-perceptual measures were derived: 1) number (and proportion) of boys and girls in their respective subgroups, 2) a measure of *exhaustivity* consisting in the proportion of boys and girls nominated in the classroom, 3) a measure of *accuracy* based on the breakdown of the perceived subgroups in their dyadic elements, whether confirmed (or not) by the presumed members themselves.

Theses measures were submitted to variance analysis by gender and academic level, with gender of social target as a repeated measure.

## RESULTS

### 1. Structural aspects of groups in which the subjects belong.

Main results show that across each age level, girls as well as boys perceive themselves as mainly affiliated with individuals of their own gender ( $F_{1,421} = 6.63$ ,  $p < .001$ ), and that this pattern increases as a function of grade level ( $F_{2,421} = 9.17$ ,  $p < .001$ ; see Table 1). This expressed segregation context is matched with perceptual differences.

### 2. Exhaustivity of perceptions.

Regarding exhaustivity of perceptions, both sexes appear to show a more inclusive perception of the position of same-gender classmates than position of other gender classmates ( $F_{1,431} = 179.93$ ,  $p < .001$ ). Also, girls in general show more inclusive perceptions than boys at each grade level ( $F_{1,431} = 20.62$ ,  $p < .001$ ). Finally, boys' and girls' perceptions improve with age ( $F_{2,431} = 125.72$ ,  $p < .001$ ; see Table 2).

### 3. Accuracy of perceptions.

Regarding the accuracy of the perceptions, Table 3 shows similar patterns: girls are more accurate than boys ( $F_{1,423} = 8.72$ ,  $p < .005$ ), accuracy increases with age ( $F_{2,423} = 236.01$ ,  $p < .001$ ), and is finer for same-gender networks ( $F_{1,423} = 10.59$ ,  $p < .002$ ). In addition, older girls' networks seem to be more accurately perceived than boys' by both sexes ( $F_{1,423} = 22.19$ ,  $p < .001$ ).

### 4. Relations between quality of perceptions and social status.

Correlation coefficients were computed for girls and boys between sociometric measures (number of positive and negative choices) and measures of inclusiveness and accuracy of perceptions. A correlation of 0.05 was found between the percentage of female classmates included and the number of positive choices received from girls. A correlation coefficient of 0.12 was found between the percentage of male classmates included and the number of positive choices received

from boys. Regarding the measures for accuracy, very low correlation coefficients (0.01 for girls and -0.01 for boys) were found between the number of correctly identified dyads of one gender and the number of positive choices received from the same gender. Correlations of the same size were found when calculated at each age level, suggesting that at no age level, sociometric status can be related to measures of the quality of perceptions.

## DISCUSSION

Results show that the context of segregation in primary school is accompanied by distortions in the perceptions of the affiliative structure in primary school. These distortions are less evident for girls and decrease with age.

Our study notes that this type of social-cognitive competence seems much affected by the context of segregation in the first four years of primary school, and that in Grades 5 and 6, the majority of children have reached a high competence level.

Our research found no relation between sociometric status and the quality of social perceptions, suggesting that these perceptions appear to be more affected by group factors than by individual status characteristics.

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Table 1. Mean number of same-gender and mixed-gender partners in sub-groups

	Classmate gender		Total
	Same-gender	Mixed gender	
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<b><u>Grades 1 and 2</u></b>			
Number of girls' partners	2.18 (2.23)	0.23 (.61)	2.41
Number of boys' partners	2.08 (1.97)	0.29 (.83)	2.37
 <b><u>Grades 3 and 4</u></b>			
Number of girls' partners	3.22 (2.69)	0.09 (.41)	3.31
Number of boys' partners	3.96 (3.02)	0.37 (1.48)	4.33
 <b><u>Grades 5 and 6</u></b>			
Number of girls' partners	2.76 (1.92)	0.68 (1.42)	3.44
Number of boys' partners	2.89 (2.07)	0.61 (1.66)	3.50

Table 2. Mean percentages of classmates included  
by boys and girls in the social structure of the classroom

	Gender of classmate	
	Same gender	Other gender
<b><u>Grades 1 and 2</u></b>		
Percentage of classmates identified by girls	60.0 (23.4)	45.3 (27.1)
Percentage of classmates identified by boys	56.2 (20.2)	37.7 (22.3)
<b><u>Grades 3 and 4</u></b>		
Percentage of classmates identified by girls	82.8 (17.2)	60.2 (23.7)
Percentage of classmates identified by boys	67.3 (18.0)	51.8 (28.0)
<b><u>Grade 5s and 6</u></b>		
Percentage of classmates identified by girls	92.4 (10.6)	81.7 (23.9)
Percentage of classmates identified by boys	85.8 (17.9)	75.0 (25.5)

Table 3. Number of dyads  
correctly perceived by boys and girls

	Female dyads	Male dyads
<u>Grade 1 and 2</u>		
Number of dyads correctly perceived by girls	5.53 (3.85)	3.21 (3.34)
Number of dyads correctly perceived by boys	3.54 (2.80)	2.65 (2.03)
<u>Grade 3 and 4</u>		
Number of dyads correctly perceived by girls	10.94 (6.27)	12.16 (14.41)
Number of dyads correctly perceived by boys	5.46 (5.77)	12.12 (10.06)
<u>Grade 5 and 6</u>		
Number of dyads correctly perceived by girls	21.33 (8.36)	15.87 (7.95)
Number of dyads correctly perceived by boys	19.00 (16.33)	16.42 (7.38)